

**WEST**

Generate Collection

Print

L15: Entry 20 of 22

File: USPT

Dec 30, 1997

DOCUMENT-IDENTIFIER: US 5704044 A

TITLE: Computerized healthcare accounts receivable purchasing, collections, securitization and management system

Abstract Text (1):

The present invention is a computerized method and system for financing health care service providers, especially pharmacies, by evaluating and purchasing their accounts receivables, scoring the creditworthiness of payors and obligors such as insurance companies, self-insured employers, health maintenance organizations, preferred provider organizations, government agencies, and other entities sponsoring groups and individuals receiving health care benefits, collecting on receivables, securitizing receivables, managing funds, and processing and reconciling claims and payments.

Brief Summary Text (4):

The present invention relates to a computerized method and system for financing health care service providers, especially pharmacies, by evaluating and purchasing their accounts receivable, rating the creditworthiness of payors and obligors such as insurance companies, self-insured employers, health maintenance organizations, preferred provider organizations, government agencies, and other entities sponsoring groups and individuals receiving health care benefits, collecting on receivables, securitizing receivables, managing funds, and processing and reconciling claims and payments (Computerized Healthcare Accounts Receivable Management System or CHARMS). See FIGS. 1 and 11.

Brief Summary Text (7):

The health care industry is primarily insurance based, and service providers such as hospitals, doctors and pharmacies ultimately rely on the credit of the insurers to satisfy most financial obligations. Two basic insurance systems are currently in operation: the indemnity system in which patients are required to make payment to service providers and then claim and collect from insurers; and the third party payment system in which service providers look directly to insurers or other obligors for primary payment, in addition to collecting optional co-payments directly from patients.

Brief Summary Text (13):

A plan sponsor is an entity that sponsors the group receiving health care benefits, e.g., operates as an insurance company that collects premiums directly from consumers in return for insurance benefits. The function of a plan sponsor is to gather a group of persons together to be insured. Plan sponsors include commercial insurance companies, health maintenance organizations ("HMOs"), preferred provider organizations ("PPOs"), Blue Cross/Blue Shield entities, affinity groups, unions, government entitlement programs (such as Medicaid), self-insured private and government employers (i.e., employers that take on the direct responsibility and liability for the health care claims of their employees rather than purchasing third-party coverage for such claims from commercial insurers), and private and governmental employers that are not selfinsured.

Brief Summary Text (14):

Based on data supplied by the Health Insurance Association of America and the Health Care Financing Administration, the current market mix of plan sponsors is estimated as: 15-30% Medicaid; 55-70% private insurance companies, Blue Cross/Blue Shield entities, HMOs and PPOs; and 15% self-insured employers. Non-governmental plan sponsors currently account for about 95% of transaction volume of the on-line pharmaceutical claims network, with the balance coming from Medicaid. The low volume of government sponsored claims currently processed over the on-line network is primarily due to the delays in the automation of Medicaid claims processing. As the present invention relies to a

significant extent on capturing claims on-line, until particular government sponsored claims are processed on-line they are generally not suitable for management by the present invention. However, the inventors expect that substantially all Medicaid claims will be processed over the on-line network by the year 2000.

Brief Summary Text (15):

An obligor is an entity that is generally considered as ultimately responsible for making payment for the healthcare services provided on its behalf and for the insurance risk associated with a plan. Plan sponsors may also be obligors, as is the case with self-insured corporations. The current on-line pharmaceutical network recognizes an estimated 3,500 entities as obligors. An obligor may also function as an administrator, as is the case with certain insurance carriers, or as a payor or processor. Most of the obligors recognized by the on-line network utilize separate entities that perform these functions to facilitate their prescription programs.

Brief Summary Text (16):

An administrator, often called a third-party administrator ("TPA"), designs, structures and services prescription plans on behalf of another. A plan is a set of parameters that indicates the eligibility and types of insurance coverage of a particular group of insured persons. TPAs also maintain service provider networks and enroll and contract with pharmacies on behalf of obligors. Some TPAs also provide payment services for obligors. They bill the obligor for approved claims on a regular basis and remit payments to the service provider on behalf of the plan sponsor. TPAs may subcontract certain functions to payors and processors.

Brief Summary Text (18):

A processor is an entity that provides on-line and paper-based manual adjudication services. A processor's responsibility is to adjudicate claims by applying the plan parameters established by the TPA (i.e., determining the acceptability of a claim based, for example, on a claimant's eligibility, the medication, and price), and then to report the results to the TPA or plan sponsor on a scheduled basis. Each payor selects a standard reimbursement payment cycle, typically 14 or 30 days, during which the processor adjudicates claims submitted over the on-line network by service providers. At the end of each processing cycle, processors "rule-off" the accumulated claims and report the results. They then forward their "experience" tapes for the relevant period, which itemize all of the approved transactions, to each TPA or plan sponsor who reviews the tapes and then makes payments to the service providers. FIG. 3. A processor may also conduct drug utilization reviews ("DUR"). There are a number of authorized sources for DUR information available from pharmaceutical and medical review boards.

Brief Summary Text (19):

The following example serves to illustrate the complex set of relationships between plan sponsors, obligors, TPAs, payors, and processors. A commercial bank, acting as plan sponsor, decides to provide insurance coverage to its employees and arranges for an insurance company to provide that coverage. The insurance company, acting as obligor, administrator, payor, and processor, collects premiums (coverage payments) from the bank, underwrites the actuarial risk associated with the plan, administers the bank's plan, makes payments to the service providers and adjudicates the insurance claims. After several years, the same bank does an actuarial and economic analysis and finds that it would be less costly to underwrite the insurance risk associated with the plan itself. The bank, now acting as a self-insured obligor, lets the agreement with the insurance company expire, and arranges with a TPA directly to administer its employee insurance coverage. For similar reasons, several other employers decide to take the same course of action and become self-insured. The insurance company, concerned with the loss of business, decides to reduce costs and premiums by contracting out some of its administrative functions. It therefore arranges with a TPA to handle its payor and processor functions.

Brief Summary Text (20):

Pharmaceutical Card System, or PCS Health Systems, Inc. ("PCS"), of Scottsdale, Ariz., a subsidiary of McKesson Corporation, of San Francisco, Calif., processes about 20% of the claims in the pharmaceutical industry, and is the largest TPA/processor. It handles the claims of over 27 million individuals for 158 commercial insurers, 700 self-insured employers and 40 Blue Cross/Blue Shield entities.

Brief Summary Text (22):

Switches accept industry standard formatted messages from pharmacies. The three largest switches--National Data Corporation, of Atlanta, Ga. ("NDC"), Envoy Corporation, of

Memphis, Tenn., and General Computer Corporation, of Twinsburg, Ohio--process approximately 80% of all on-line transaction volume, with NDC being responsible for 70% of that 80% and being the only switch with access to every major processor.

Brief Summary Text (23):

A large number of companies supply several hundred software packages to service providers for such purposes as automatic inputting and formatting of electronic claims. Although the performance of the competing software systems vary dramatically, the functions they perform and the formats used to transmit third party pharmacy claims are essentially identical because all electronic messages must conform to the standard electronic message format set by the National Council for Prescription Drug Programs ("NCPDP") of 4201 North 24th Street, Phoenix, Ariz. 85016-6268. NCPDP provides standard formats for many electronically transmitted message formats, including, for example, the following formats which specify field number, field name, field type, field format, and field length positions: (1) transaction format for prescription, which includes fields such as BIN, version number, transaction code, processor code, pharmacy number, group number, cardholder identification number, date of fill, and prescription number; (2) response format for eligibility verification or prescription claim, which includes fields such as BIN, transaction code, response status, and response data; and (3) claim reversal format, which includes fields such as BIN, transaction code, processor code, pharmacy identification number, date of fill, and prescription number. Other NCPDP standard message formats include a worker's compensation claim format, a medicaid claim format, a claim payable response format, and a claim captured response format.

Brief Summary Text (29):

Processors may perform over 50 edits on each claim to insure that the precise parameters of the plan are met. A claim which passes all of the processor's system edits is deemed "approved" and receives "claim payable" status. As explained in detail below, approved claims are subject to subsequent, often inappropriate, payment adjustments by a processor. Claim messages which do not contain all of the required plan parameter inputs in acceptable form are rejected during processor system edits and returned to the service provider with an identification of the plan parameter(s) causing the rejection. These claims may be immediately amended by the service provider and resubmitted for adjudication. Suspended claims are those which the processor neither approves nor rejects but rather holds while it requests additional information from the service provider or pre-approval from the plan sponsor.

Brief Summary Text (31):

A review of a number of receivables portfolios by some of the inventors has revealed an average of 35 days for payment to be received by many service providers. Although each portfolio is unique for each pharmacy because each has a different operating plan, it is likely that the overall receivable time frame will not vary significantly because the major TPAs have structured the same program for most or all of their plan sponsors. Thus, even though any given pharmacy could end up with a claim transaction relating to any one of 3,500 obligors that the pharmacy honors, there is much homogeneity due to the uniform nature of the TPA' plans.

Brief Summary Text (35):

The existing pharmaceutical claims processing and payment system presents several problems for service providers, including the following: (i) delays in receipt of payment; (ii) difficulty in reconciling accounts and payments; (iii) unilateral adjustments by processors of approved adjudications; (iv) increasing credit risks among payors and obligors; and (v) assorted charges per claims transaction. Each of these problems is explained more fully below and is substantially solved by the present invention.

Brief Summary Text (40):

The inventors estimate that the average pharmacist dispenses 2,457 prescriptions per month, 43% of which (or 1,056 prescriptions) service patients from 30 different plans, at an overall average value of \$23.90 (in 1991) per prescription. The types of instances requiring investigation and/or reconciliation, listed above, occur on average 60 times a month against 1,056 third party claims and 30 different statements. It takes about 15 minutes per item to identify each of the above listed issues and then call, inquire, write, adjust and eventually resolve them each month. Since the going rate for a pharmacist is about \$37.00 per hour, including benefits, it would cost a pharmacist about \$579 a month to fully reconcile the 1,056 claims--about \$0.55 per claim, or 2.3% of the pharmacist's monthly activity. According to a recent survey done by Faulkner & Gray to evaluate medical payments, the top 40 pharmacies report an average cost of \$0.50 per transaction to cover internal efforts that primarily surround reconciliation

and collection.

Brief Summary Text (42):

Another problem faced by service providers under the existing claims processing and payment system is the increasing credit risk among payors and obligors as a group. This is due primarily to the increasing failure by insurance companies beginning in the late 1980s, and to an increasing proportion of self-insured plan sponsors. Many service providers are not even aware of this increasing credit risk because they do not have a direct relationship with the obligors.

Brief Summary Text (43):

This misconception has become more important as the mix of obligors has changed. Initially, all plans were "insured," that is, obligors were either private insurance companies or governmental agencies. As insurance premiums continued to rise, however, many employers investigated the costs and risks of self-insurance, and there are now a growing number of self-insured plan sponsors. This changes the ultimate credit nature of third party claims because (i) self-insurers do not have to follow the same financial guidelines and regulations as insurance companies; and (ii) although many self-insured plans are administered by insurance companies, the insurance companies do not assume contractual liability for payments under these plans. Therefore, while the processing systems to support third party payments were evolving, the creditworthiness and ability to pay of obligors was changing for the worse. Therefore, there is now a new credit risk that few service providers are aware of, let alone prepared for.

Brief Summary Text (44):

This credit exposure problem has been addressed to some extent, from the perspective of TPAs, by PCS and other TPAs that have begun screening out risky obligors. However, despite the very different credit ratings and payment capabilities of obligors, the on-line claims processing and payment system, by design, does not give service providers the ability to discriminate based upon the creditworthiness of the obligor. Historically, on-line network TPAs have required service providers to accept claims from all of their plans when presented. Only recently has any network allowed its service providers the option not to accept a claim with a pre-specified plan, and some of the newest contracts between pharmacies and TPAs now allow service providers to so identify specific plans they will not service. However, the on-line processing system still does not facilitate this discrimination because the limited resources of most service providers prevents them from properly researching the creditworthiness of obligors.

Brief Summary Text (46):

Finally, there are significant costs related to the third party payor process. The inventors estimate that the average pharmacy currently incurs a total cost of \$1.02 per claim transaction, based on the following expenses: (1) \$0.10 per transaction in data communications and switch charges; (2) \$0.50 per transaction in internal reconciliation costs, as discussed above; (3) \$0.18 per transaction in cost of funds based on current borrowing rates and an average receivable time of 35 days; and (4) \$0.24 per transaction for reserve for losses and delayed payments calculated at 1.0% of sales. In addition, there are processing charges to both parties in the transaction--service providers are charged per electronic transaction, and plan sponsors are charged by the processors according to the number of conditions that must be confirmed in order to approve a claim, the number of individuals covered, and the number of database analyses the plan sponsor requires. Reduction of some of these costs, such as reconciliation and cost of funds, will be a major benefit to service providers as well as to other industry participants.

Brief Summary Text (50):

A service provider wanting to take advantage of CHARMS enters into a contractual arrangement with a system operator (the "System Operator") such as The Pharmacy Fund, Inc. ("PFI") of New York, N.Y., assignee of the present invention. After establishing a contractual relationship with a service provider, the provider and the System Operator notify the relevant payors and obligors that future payments for that service provider are to be made to the System Operator. The service provider continues to transmit insurance claim messages to the switch, which forwards the messages to the designated processor and now also retains a copy for CHARMS. See FIGS. 9 and 10.

Brief Summary Text (55):

The inventors have adapted and integrated pre-existing business disciplines and technologies into CHARMS in a unique and effective manner. The following are seven primary operating functions performed by one embodiment of CHARMS: (1) message

- switching and customer service; (2) evaluation of service provider portfolios; (3) credit scoring and payor and obligor selection; (4) transaction processing; (5) funds collection; (6) funds management and reconciliation; and (7) receivables securitization. See FIG. 11. In another embodiment, the message switching function is carried out by a third party. Each function is discussed in more detail below.

Brief Summary Text (59):

CHARMS also provides the means for service providers to request information from CHARMS regarding their transaction and payment activity and payor, obligor, and plan coverage, and for CHARMS to respond quickly and supply the information, without the need to modify the existing NCPDP standard protocols. One means used in one embodiment of the present invention is an electronic bulletin board to which service providers can call using their computers and modems to obtain general and deposit account information, as well as to exchange messages with other on-line industry participants. In addition, CHARMS utilizes a unique on-line inquiry and response system by which service providers transmit NCPDP compliant inquiries over the on-line network requesting information such as how much money the System Operator has transferred via the ACH or how many claims have been approved or declined. See FIGS. 25-25A.

Brief Summary Text (60):

To facilitate the operation of this on-line inquiry subsystem, service providers create a new "dummy" record in their in-house computer system which looks like a patient record and which contains the information, such as a BIN, necessary for the switch to channel the record to CHARMS. All the data fields for claim information in this dummy claim are set by the service provider to zero. All the necessary fields, such as the version number, the transaction code, the processor control number and the provider number ("NABP number") are filled with the usual data. The group number or cardholder identification number fields are used by the service provider to indicate what request it is making, and the date of fill field is used to indicate which day's information is being requested. The response sent back to the service provider is in the form of a NCPDP standard rejected claim response, and the specific information requested is sent in the free-form message text fields of the response.

Brief Summary Text (64):

Any service provider wishing to use CHARMS will subscribe with the System Operator. In accordance with one embodiment of the present invention and in conjunction with the service provider's financial management procedures, CHARMS first extracts a transaction history of all recent third party payables processed by the subscribing service provider. This history is converted into a database that is used to determine the list of processors and creditors being used by the subscribing service provider and to identify TPA and plan sponsor concentrations. In one embodiment, CHARMS also extracts from the service provider data regarding the provider's payor and obligor payment histories for use in its creditworthiness scoring process.

Brief Summary Text (73):

4. Transaction Processing

Brief Summary Text (74):

On a daily basis, CHARMS summarizes and prepares records of all transactions. At the end of daily processing, CHARMS initiates a series of funds transfer transactions for all approved claims that have been marked for purchase. In one embodiment of the present invention, CHARMS credits the pharmacy's designated bank account through the existing ACH system in accordance with the agreed upon discounting schedule and debits the SPV's funding account. In conjunction with one embodiment of the present invention, the agreements between the System Operator and the service providers will be for at least one year at a fixed contracted "target" discount rate that can be altered based on fluctuations in a specific market index and on changes in the mix of payors and obligors. CHARMS also updates the automated account reconciliation system for each pharmacy. Each claim transaction CHARMS decides to buy has a specified value and an authorization code that has been issued by the plan sponsor or its agent. This is a significant difference from all other receivables in the health care industry.

Brief Summary Text (75):

CHARMS treats each purchased claim transaction in a manner similar to the treatment of credit card transactions. This allows service providers to treat their third party transactions similar to their existing credit card processing and reconciliation. Eventually this will also allow for the elimination of all the separate accounting systems that were developed for third party transactions. This is an important component of the present invention and is a dramatic change from the paper-based

detailed statements provided by most payors, processors, TPAs, and plan sponsors to support the existing funds transfer and internal reconciliation effort.

Brief Summary Text (79):

Upon the establishment of a relationship between the System Operator and a newly subscribing service provider, notice is sent to all relevant payors that all future payments and supporting data for approved claims should be sent directly to the System Operator. CHARMS directs payors to make payments directly to an SPV lock box account. CHARMS monitors the compliance of the payors with their contracted payment terms to insure both the accuracy and timing of the funds flow. FIG. 46. Using pre-defined protocols that are constantly tuned to achieve the most effective payment results, CHARMS provides the means to systematically contact payors and obligors when timely payment has not been received.

Brief Summary Text (82):

On a daily basis CHARMS provides for at least the following cash management functions: (1) the purchase of new service provider receivables; (2) the collection of payments from payors; and (3) the funding or redeeming of market securities. CHARMS processes RAs as they are received along with payments from payors. CHARMS then reconciles previously retained claims against data received in these RAs, uses pre defined parameters to determine disposition, and identifies, reports, and stores any exceptions in an exception database file. The volume of transactions CHARMS processes, which will be in the hundreds of millions of dollars, is manageable because of the homogeneity of the transactions and the existing infrastructures of electronic healthcare message switching, credit card processing, and securitization management systems. In addition, CHARMS monitors daily cash available from funding efforts and receipts from payors and obligors, as well as funds used to buy receivables. Combinations of short term funding vehicles, commercial paper, and medium term notes are used to match cash needs while at the same time obtaining the best possible "pooled" interest rate against the overall portfolio.

Brief Summary Text (88):

CHARMS provides the means to obtain the funds needed to purchase the account receivables through securitization, (i.e., borrowing the money and using the receivables as collateral). CHARMS provides for the securitization of the receivables as follows. CHARMS provides the means for the purchase by the System Operator of all of the adjudicated and approved third party receivables from the contracted service providers. CHARMS utilizes historical third party payment data and standardized ratings of the relevant payors and obligors to present rating agencies a conventional underwriting package that will be very easy to rate. Once a rating is established, a broad range of highly competitive markets will be available in which to obtain funding.

Brief Summary Text (101):

It is an object of the present invention to reduce the uncertainties service providers face with the cash flow variations that have become commonplace with insurer payments.

Drawing Description Text (28):

FIG. 46 shows the structure of the payor services transaction flow in one embodiment of CHARMS.

Detailed Description Text (3):

CHARMS is comprised of a variety of hardware and software elements. CHARMS's hardware elements include one or more mainframe computers, terminals and workstations, personal computers, display devices such as monitors and printers, input devices such as keyboards and mouses, communication devices such as modems, and the requisite cables and electrical connections. In one embodiment, CHARMS is comprised, in part, of mainframe computers available through Tandem Computers, Inc. of Cupertino, Calif., which are used to process most of the functions including transaction capture, database maintenance, summarization, customer service systems, and report production. In this embodiment, CHARMS utilizes a compatible, fault-tolerant operating system on the mainframe computer, such as GUARDIAN 90.RTM., and a data base and file management system such as NONSTOP SQL.RTM., both available through Tandem Computers, Inc. CHARMS also utilizes a 3270 terminal emulation system for the terminals and workstations, such as SNA 3270.RTM. Communications Software available through Tandem Computers, Inc.

Detailed Description Text (10):

The provider profile records are accessed during a number of CHARMS processes, including: transaction and provider cut-off processing; daily summarization processing;

payor RA reconciliation; ACH processing; customer services operation; and System Operator management requirements and internal functions.

Detailed Description Text (13):

One embodiment of CHARMS contains a help desk subsystem that provides the means for the operation of a customer services help desk by the System Operator. When the System Operator receives telephone calls or other correspondence from service providers, it resolves the caller's request and/or orders a report to be sent to the service provider, when necessary. See FIG. 17. To help resolve a service provider's request for information, the System Operator has access, through a series of help desk display screens, FIGS. 17A-17P, to a number of databases stored by CHARMS, including the provider and payor profile records, the summary file, the bulletin file, and the accumulated transaction file. FIG. 17. The information available through the help desk display screens is updated on a regular basis, which in one preferred embodiment is daily.

Detailed Description Text (15):

CHARMS's help desk subsystem also provides the means for the System Operator to quickly perform functions and access a variety of information through the use of "Hot Keys" The Hot Keys available from the main menu screen in one embodiment of the invention are shown in FIG. 17A as beginning with the character string "PFxx", where "xx" is a numerical string assigned to each particular screen. The PF keys are used to transfer directly from screen to screen without the need to return to the main menu. For example, to go to any screen for a specific pharmacy, transaction date, deposit number, or report, the System Operator enters the necessary information and presses the appropriate PF key, and to display a claim summary for a provider chain, the System Operator enters the chain code and presses the appropriate PF key. To facilitate the use of this Hot Key system, the PF key assignments are substantially consistent throughout the screens, and any variations in PF key assignments are indicated at the bottom of each individual screen. The System Operator may "Hot Key", i.e., automatically transfer, from the main menu screen to other screens without returning to the main menu, and CHARMS's call tracking system logs all screens accessed until the call has ended and the PF key for END/RECORD CALL has been pressed.

Detailed Description Text (18):

In cases where a provider calls regarding the CHARMS bulletin currently being sent to the providers via on-line transactions, CHARMS allows the System Operator to display the current message as well as previous messages by entering the transaction date and marking the PFI BULLETIN REVIEW field on the menu. A monthly statement can be ordered for a provider by entering the NABP or chain numbers and selecting MONTHLY STATEMENT field from the menu.

Detailed Description Text (21):

FIG. 17B is the "pharmacy profile" screen, through which CHARMS provides service provider information, bank information, and year to date transaction information. If a provider is part of a chain or buying group, the chain or group codes are also entered, which link the data in the provider profile record to the data in the specified chain or group record. The MEDICAID NO. field is used as a cross reference to link it with the NABP Number.

Detailed Description Text (25):

The following are the data types for the fields on the pharmacy profile screen: (1) the pharmacy data fields include name, address, city, state, zip code, phone number, fax phone number, first and second contact person, and time zone; (2) the PHARMACY TYPE field indicates the type of store such as grocery store pharmacy, super store pharmacy, and stand alone pharmacy; (3) the CHAIN CODE No. field indicates the three digit NCPDP chain code for the chain; (4) the BUYING GROUP No. field indicates a CHARMS internal buying group number which is used for grouping providers or chains under a single buying entity; (5) the SOFTWARE VENDOR NAME and PHONE NO. fields are used to indicate who the particular provider software vendor is and a contact telephone number; (6) the CONTRACT DATE field indicates the date the provider enrolled in the CHARMS program; (7) the FIRST BUY DATE field indicates the date of the first transaction between the provider and CHARMS; (8) the TERMINATION DATE field indicates the date the pharmacy is no longer participating in the CHARMS program--this date can be added in advance of the effective date and used as a key for pharmacy eligibility edits. (9) the REMIT TO field is used to indicate if payments are to be made to the individual provider or a single payment made to the chain headquarters--if the payments are to go to the headquarters, this data is blank on this screen, and displayed on the chain profile screen instead; (10) the AVG. DAILY RECEIVABLES field indicates the individual provider's daily third



party receivables--this information is used for monitoring and fraud protection, as explained elsewhere in this disclosure; (11) the BANK NAME, ACCOUNT NO., and BANK ROUTING fields are used by the System Operator to identify the provider's bank payment information--this is blank when the remittance goes to the chain headquarters; (12) the DISC. RATE 1 and DISC. RATE 2 fields indicate contracted discount rates, both the standard rate and a special rate if applicable; (13) the YTD # OF CLAIMS and YTD \$ OF CLAIMS fields are used to show the provider's status as of a particular date, and could be used in determining if the discount rate requires re-negotiating--this same data is included in the chain profile screen; (14) the ADJUSTMENT AUTHORIZATION levels are used to guide the System Operator in determining what level of escalation is required to process a specific adjustment amount; and (15) the CLIENT STATUS CODE field indicates when special attention is required--for example, a value of "1" would indicate "MONITOR ACCOUNT", and a value of "2" would then indicate "AUDIT REQUIRED" and identify this provider as a potential termination should the audit confirm fraud or other abuses.

Detailed Description Text (26):

FIG. 17C is the primary "deposit summary" screen which shows the deposit number, total dollar amount of purchased claims, total dollar amount of non-purchased claims, total dollar amount of adjustments, total amount due, discount fee amount, total net amount of deposit, negative balance indicator, wire transfer indicator, deposit date, and deposit time. By entering a NABP number or chain code and any of the following information: transaction date, from and to dates, deposit number, or deposit date, the System Operator then presses the appropriate PF key to pull up all of the above listed information.

Detailed Description Text (32):

FIG. 17F is the "claim detail" screen showing prescription number, processor, carrier/group, date of fill, amount paid, discount fee, posting date, and posting time for all claims CHARMS decides are to be purchased. These claims include standard claims, zero payable claims, and captured claims with no actual dollar amount to purchase. Claims which have been reversed are indicated by the letter "R" placed at the end of the prescription number field. Example: 1234567R. After the System Operator enters a NABP number and either transaction date or from and to dates, it then presses the PF key that pulls up all of the above listed information.

Detailed Description Text (35):

CHARMS provides the means to identify at least the following five types of adjustments: (1) a processor/payor charge-back or positive adjustment; (2) a CHARMS charge-back or positive adjustment; (3) a CHARMS discount fee adjustment; (4) processor transaction fees; and (5) miscellaneous fees. CHARMS totals the number of adjustments along with the total dollar impact to that day's totals for balancing. These adjustments are carried forward in totals only to the claim summary screen.

Detailed Description Text (37):

To inquire, the System Operator enters the NABP number or chain code, and any of the transaction date, from/to dates, deposit number, or deposit date.

Detailed Description Text (38):

The following are the codes used for the TYPE field in one embodiment of the invention which indicate the reason for any adjustments: (1) PTWP--Paid to the Wrong Pharmacy; (2) COST--Ingredient Cost (AWP) Paid; (3) DISP--Dispensing Fee Paid; (4) COPA--Copayment from Patient; (5) TAX--Sales Tax; (6) CHBK--Charge Back; (7) PRVL--Claim Reversal Done By Processor; (8) RVSL--Claim Reversal Out of Cycle; (9) DISC--Change in Discount Fee; (10) AUDT--Pharmacy Audit; (11) EFT--EFT Payment Correction; (12) TRAN--Processor Transaction Fees; (13) MISC--Miscellaneous Fees; and (14) PREV--Correction of Previous Adjustment.

Detailed Description Text (51):

After the System Operator enters a NABP number and either transaction date or from and to dates, it then presses the assigned PF key to bring up all of the above listed information. The last page of any message or report sent to providers includes total volume and dollar amount for the requested period. This screen is used only for individual provider information. Should a chain request this information, an off-line report is generated and sent to the chain. The same selection criteria is used for either pharmacy or chain requests.

Detailed Description Text (54):

FIG. 17L shows the "chain profile" screen, which provides information regarding the pharmacy chain, bank information, and year to date transaction information for the



entire chain. To add a new chain, the System Operator calls up a blank chain profile screen by bringing up the main menu screen, entering the chain code, and pressing the PF key assigned for this screen from the main menu screen. Once all of the information is entered, the System Operator presses the PF key to add the record. To update the record, the System Operator goes to the specific profile, makes the necessary changes, and presses the PF key to update. The update also takes place on all individual pharmacy profile screens. To delete a record, the System Operator goes to the specific profile and press the PF key to delete. CHARMS then inquires "CONFIRM DELETION Y/N", and the System Operator then either confirms or cancels the deletion process. Once this has been done, the record and all detail information is moved to a history file.

Detailed Description Text (56):

At least the following data fields appear on this screen: (1) the CHAIN TYPE field indicates the type of chain such as grocery store chain, or super store chain; (2) the SOFTWARE VENDOR NAME and PHONE NO. fields are used to indicate who the particular provider software vendor is and a contact telephone number; (3) the CONTRACT DATE field indicates the date the chain enrolled in the program; (4) the FIRST BUY DATE field indicates the date of the first transaction with CHARMS; (4) the TERMINATION DATE field indicates the date the chain is no longer participating in the program--this date can be added in advance of the effective date and used as a key for pharmacy eligibility edits; (5) the REMIT TO field is used to indicate if payments are to be made to the individual pharmacy or a single payment made to the chain headquarters; (6) the AVG. DAILY RECEIVABLES field indicates the chain's total daily third party receivables--this information is used for monitoring and fraud protection, as described elsewhere in this disclosure; (7) the BANK NAME, ACCOUNT NO., and BANK ROUTING fields are used to identify the chain's bank payment information; (8) the DISC. RATE and PREM. RATE fields indicate contracted discount rates, both the standard rate and premium rate if applicable; (9) the YTD # of CLAIMS and YTD \$ OF CLAIMS are used to show the chain's total status as of a particular date, and could be used in determining if the discount rate requires re-negotiating--when the chain belongs to a special buying group, there may be a need to access that screen from one. To do this, the System Operator makes sure the BUYING GROUP No. has been entered on the chain profile screen, and presses the PF key assigned for PHARMACY/BG PROFILE.

Detailed Description Text (58):

FIG. 17N shows the "PFI bulletin" screen, which is used to generate and display any System Operator bulletins which would be sent out to all member providers during daily on-line inquiries. To display the bulletin, from the main menu screen the System Operator enters the date in question and marks the PFI BULLETIN REVIEW section to display this screen. For review of previous bulletins, the System Operator need only change the transaction date, or return to the main menu screen to inquire on another bulletin.

Detailed Description Text (64):

All standard detail reports and summary reports are formatted the same way as the inquiry screens. To generate a report, CHARMS accesses a number of database files, including the provider and payor profile records, the summary file, the bulletin file, the accumulated transaction file and the history file. FIG. 18. To minimize system utilization, CHARMS generates the report during off-line processing, and prints out a hard copy to be forwarded to the help desk for mailing to the service provider.

Detailed Description Text (68):

The deposit summary inquiry is used by the provider to view summary information regarding his daily deposit. In one embodiment, this information contains: (1) total dollars and number of transactions for purchased claims; (2) total dollars and number of reversals pertaining to purchased claims; (3) total dollars and number of transactions for non-purchased claims; (4) total dollars and number of transactions for credits; (5) total dollars and number of transactions for adjustments; (6) total dollars and number of processor fees; (7) total dollars for discount fee; (8) total dollars of net deposit; (9) deposit number (ACH Tracer Number); (10) prescription number of the last purchased claim for the specific transaction date; and (11) a bulletin indicator, which indicates when bulletin information is available for inquiry.

Detailed Description Text (69):

In another, preferred embodiment, the deposit summary information transmitted by CHARMS in response to a deposit summary inquiry from a provider includes: (1) the date of the information requested; (2) page numbers, represented as "PAGE n OF n", for each inquiry; (3) total dollars and number of transactions for purchased claims; (4) total

dollars and number of reversals pertaining to purchased claims; (5) total dollars and number of transactions for non-purchased claims; (6) total dollars and number of transactions for credits; (7) total dollars and number of transactions for adjustments; (8) total dollars for a System Operator service fee; (9) total dollars for net deposit; (10) prescription number of the last claim for the specific transaction date; (11) a MORE/END indicator, which indicates when there are additional pages to follow or when the last page has been sent; and (12) the bulletin indicator.

Detailed Description Text (70):

The deposit/adjustment detail inquiry is used by the provider to view detail information regarding his daily deposit. In one embodiment, this information contains: (1) total dollars and number of transactions for purchased claims by processor; (2) total dollars and number of reversals pertaining to purchased claims by processor; (3) total dollars and number of transactions for non-purchased claims by processor; (4) total dollars and number of transactions for credits by processor; (5) total dollars and number of transactions for adjustments by processor; (6) total dollars and number of transactions for purchased claims; (7) total dollars and number of transactions for adjustments; (8) total dollars and number of processor fees by processor; (9) total dollars for discount fee; (10) total dollars of net deposit; (11) deposit number (ACH tracer number); (12) prescription number of the last purchased claim for the specific transaction date; and (13) the bulletin indicator.

Detailed Description Text (75):

After each daily summarization process, the daily summaries and accumulated transaction files are updated with detail information regarding each provider's daily activity. To facilitate a quick response to an on-line inquiry, CHARMS accesses the daily summaries and accumulated transaction files and writes to files in 214 character blocks the four types of information available for inquiries in one embodiment of CHARMS. Whenever the information exceeds 214 characters, the characters "<MORE>" are written into the last six (6) positions of each page except for the last to indicate to service providers that they need to submit a new inquiry message to receive the remainder of the information. In the last page, the characters "END" are written into the last three (3) positions of the message.

Detailed Description Text (77):

Upon receiving the claim message, CHARMS reads the file containing the requested information, opens a record in the form of a NCPDP-standard rejected claim response, and writes the requested information into the message text and extended message text fields of the rejected claim response. If the requested information is greater than 214 characters, CHARMS transmits the response to the provider which includes the characters "<MORE>" at the end of the message, and sets a flag to queue up the next block of 214 characters in anticipation of the next inquiry for additional pages from the provider. CHARMS marks the time that the flag is set, and if a specified time period, which in one preferred embodiment is 30 minutes, expires without additional inquiries for the additional pages, the flag is dropped and responses to any subsequent requests for the information begin with the first page. If the provider re-inquires with the same claim transaction within the time limit, CHARMS responds with another standard reject response and the next page of information. This process continues until the last page is received by the provider and the message text no longer contains the "<MORE>" indicator. Once all pages of the requested information have been transmitted, CHARMS marks the NABP number as having received the information. In another embodiment of the invention, CHARMS does not wait to receive additional inquiry messages from the service provider, but transmits the additional pages in consecutive response messages.

Detailed Description Text (81):

In one embodiment of the present invention, CHARMS incorporates an on-line electronic bulletin board system to facilitate communications between and among on-line industry participants including service providers, payors, software developers, and the System Operator. The on-line bulletin board includes the following functions: (1) access to transaction, bulletin, and management information; (2) general access to business and public information such as stock prices and healthcare industry news; and (3) message service among on-line industry participants such as providers, TPAs, and software developers. In one embodiment of the invention, CHARMS incorporates a commercially available electronic bulletin board system such as BBS WILDCAT.RTM., available through Mustang Software Company of Bakersfield, Calif.

Detailed Description Text (84):

To generate the statement, CHARMS accesses a number of databases, such as the provider and payor profiles, the reconciliation exception file, the history file, the summary

file, the bulletin file, and the transaction files.

Detailed Description Text (88):

In one embodiment of CHARMS, the payer, obligor, and processor profile databases are accessed during the following functions: transaction processing; daily summarization processing; payer RA reconciliation; and customer services. CHARMS also provides the means to produce reports of the payor.backslash.obligor.backslash.processor databases for review of data accuracy and completeness and for management information.

Detailed Description Text (89):

In one preferred embodiment, CHARMS also creates and updates a plan profile database which is used during daily processing to make buy/decline decisions and for determining summarization levels in reporting. Because certain payors use multiple rule-off and payment schedules for certain obligor clients, CHARMS should be able to distinguish claims by payer and plan to effectively manage the claims processing, credit, and reporting functions. The plan profile records contain at least the following data fields, which represent the attributes that define the relationships among the obligors, payors and processors: (1) plan name; (2) plan number; (3) obligor name; (4) obligor number; (5) payor name; (6) payor number; (7) processor name; (8) processor number; (9) cycle rule-off schedule; (10) payment schedule; (11) RA receipt schedule; and (12) buy/decline code.

Detailed Description Text (95):

The Daily RR-NABP file stores the current day's transactions summarized by Bin.sub.-- NBR for each NABP.sub.-- NBR, Group.sub.-- NBR, or Chain.sub.-- NBR, whichever is the highest level. The Daily RR-Obligor file stores the current day's transactions summarized by Bin.sub.-- NBR/Plan.sub.-- NBR/Obligor.sub.-- NBR within each BIN. The RA Receipts Summary file stores the daily run of RA tapes processed and matched against the RR Trans file. Each record represents a summary of one RA tape. The Diff.sub.-- from.sub.-- LB field, a comparison to the Lock Box receipt, is made based on Batch NBR. The Accounts Receivable Summary file stores the summary amount by Plan.sub.-- NBR/Obligor.sub.-- NBR within each BIN, all unreconciled purchased claims, adjustments, and RA amounts. It is also used for cash projections and budgeting by CHARMS. The Accounts Receivable Detail file stores the same as the Accounts Receivables Summary file, except that it also includes detail records at the transaction level.

Detailed Description Text (111):

The exact value of a creditworthiness score is generally not as important to CHARMS as the creditworthiness status, which is obtained from the percentage that the creditworthiness score represents out of the total range of possible creditworthiness scores permitted by the particular rating scheme used (see, e.g., FIG. 49, column J). In the preferred embodiment, there are three ranges: top, mid and bottom range. In this embodiment, a payor or obligor with a creditworthiness score in the top 25% of the score range (e.g., scores of 45-60 in FIG. 49) is considered by CHARMS as a good credit risk, and interaction consists of persistent follow up to continually improve collection results. A payor or obligor with a creditworthiness score in the second 25% or mid range is considered a moderate credit risk, is notified that it should improve its performance, and is followed closely to insure immediate action if its financial condition deteriorates. A payor or obligor with a creditworthiness score in the bottom 50% of the range is considered a poor credit risk and is notified that any late payments should be cured immediately and that failure to cure within 48 hours of notice results in its being "cut-off" at the end of that time, i.e., that CHARMS will decline to purchase claims related to that payor or obligor.

Detailed Description Text (115):

CHARMS provides the means to effect and maintain efficiently operating relationships with processors and payors to insure timely payments while minimizing credit and operating risk. The means include the functions providing for creation and update of the profile databases, the generation of reports, the reconciliation of RAs and payments, and the collections protocols. In addition, updated payor and processor information is used to update the HMS/HHL file, which is used to implement the collections procedures according to pre-defined protocols. The payor and processor identification information transferred by CHARMS to the HMS/HHL file includes the following data fields: (1) name; (2) identification number; (3) address routine; (4) contact name--routine; (5) contact phone number--routine; (6) address--escalated; (7) contact name escalated; (8) contact phone number--escalated; and (9) cycle rule--off dates. FIG. 46 shows an overview of the payor services transaction flow.

Detailed Description Text (117):

- Daily claims processing for CHARMS deals with capturing transaction data from providers and processors and, based on a number of considerations, results in provider payments for the System Operator's purchase of third-party health care claims. As shown in FIG. 11, daily processing is composed of the following inter-related processes and procedures: (a) transactions are received from providers and adjudicated by processors; (b) the resulting adjudicated transactions are captured, time-stamped and passed against payor, obligor, plan and provider profiles and certain date constraints to determine whether or not they are eligible to be bought--those that are not eligible are marked declined; (c) the eligible transactions are then matched internally to the daily transaction file and against accumulated prior days transactions (both reconciled and unreconciled) to handle duplicates, reversals and certain processing anomalies, e.g. time-outs and bad blocks, and to identify bought claims; (d) the daily processor/payor reconciliation process updates the accumulated transaction file based on RA information (marking paid transactions as reconciled and classifying other items as provider or payor exceptions) and generates provider exception transactions for daily summarization and subsequent ACH entry; (e) reconciliation-generated amounts are combined with daily bought claim amounts and CHARMS-generated adjustments, and summarizations are developed for daily ACH entry, provider-initiated inquiry response, and help desk access; (f) ACH transactions by provider are generated based on predetermined cut-off times and are passed to the ACH; and (g) internal controls supporting an audit trail are developed and maintained, and summary totals for funds management and management reporting purposes are prepared.

Detailed Description Text (118):

1. Transaction Capture

Detailed Description Text (119):

FIG. 20 shows an overview of the transaction capture process in one embodiment of the present invention.

Detailed Description Text (120):

A claim is initiated when an insured claimant takes an eligible prescription to a pharmacy, and the pharmacy enters the relevant information about the claim into its in-house computer system. FIG. 13. Using one of the commercially available software packages, as discussed above, the pharmacy then submits the claim electronically to a switch. The Switch reads the BIN of the claim message. If the BIN is "004675", the message is identified as an on-line inquiry request, and on-line inquiry processing begins, as described above. If the switch identifies the claim as emanating from a CHARMS subscriber, the switch time-stamps the claim message (i.e., retrievably stores the date and time of receipt of the message), and routes the message to the appropriate processor. A copy of that submitted transaction is retained at the switch before it is sent on the designated processor. The form of electronic claim messages is currently based on the industry standard formats, NCPDP versions 1.0 through 3.2, though new versions will likely appear from time-to-time and pharmacies' claims will conform to one or more of those new versions.

Detailed Description Text (125):

First, CHARMS marks as declined any transactions for which the date stored in the Date of Fill field in the claim message precedes the date stored in the First Buy Date field in the associated provider profile record. It also marks as declined any claims for which the date stored in the "Date of Fill" field precedes the oldest item stored in the accumulated transaction file.

Detailed Description Text (126):

Next, CHARMS compares each claim message to its corresponding records in the payor, obligor, and plan profile databases. If the payor, obligor, and plan records are marked to decline transactions, then CHARMS marks the transaction in question as declined. To determine the appropriate payor, obligor, and plan profile records, CHARMS treats the BIN as the payor number, unless the plan indicates otherwise. Specifically, CHARMS uses the data stored in the BIN and group number fields in the claim message to determine the NCPDP record positions containing the plan number, and then uses the plan number to identify and access the payor, obligor, and plan profile database records. If CHARMS can not identify the plan number or can not access a plan profile record, it treats the BIN as a payor number and uses it to access the payor, obligor, and plan profile records.

Detailed Description Text (130):

Next, CHARMS uses the following general approach for the handling of reversal claims: (1) CHARMS matches claims in the daily transaction file to claims previously received

and stored in the existing transaction file using the NABP Number, Prescription Number and the Date of Fill fields; (2) If the reversal matches a claim that has not already been bought, CHARMS marks the corresponding claim as reversed; (3) If the reversal matches a claim that has already been bought on a day prior to receipt of the reversal, CHARMS reduces the daily ACH amounts accordingly during the summarization process; (4) Reversals without matching claims are handled during reconciliation processing, described below.

Detailed Description Text (131):

To perform duplicate checking, CHARMS compares all claims sent with claims previously received and stored and identifies duplicate claims using the NABP Number, Prescription Number and the Date of Fill fields. The following important transaction sequence is used by CHARMS to accurately perform duplicate and reversal checking of NCPDP Version 1.0 formatted claims consistent with methods used by processors: (1) examination of duplicates and their related reversals in ascending time of receipt order; (2) consideration for buying only the first transaction in a sequential group of duplicates; (3) if a matching reversal is encountered subsequent to these duplicate claims, declining to buy any of the corresponding claims; and (4) if there is no reversal for this group of duplicates, only deciding to buy the first claim.

Detailed Description Text (132):

FIGS. 31-32A show a table that sets forth the transaction processing decision logic for specific rules for handling transactions depending on their status in the daily and existing transaction files, such as duplicates, reversals and other anomalies in one embodiment of the invention. All transactions listed on the table in FIGS. 31-32A which are shaded have been determined to be either impossible cases or of such rare occurrence that they are written to an exception file for unusual transactions designated for manual handling and investigation. In the table, the term "Log file" refers to the file of new transactions, the term "RR Trans" refers to the RR Trans database file which stores accumulated transactions, the term "Recon" refers to a reconciled claim for an amount paid on an RA, the term "NR" refers to a claim not reconciled for an amount not paid on an RA, and the term "Same Proc Day" refers to a transaction on the RR Trans file that has the same processing date as a transaction on the Log file, where neither have been run through the daily summarization procedures.

Detailed Description Text (136):

After making the decision to buy a claim and determining the applicable discount rate, CHARMS arranges for the purchase of the claim by, in one embodiment of the present invention, making the ACH transfer determinations and then transmitting the transaction directly to the ACH. This action results in a debit to CHARMS's SPV bank account and a credit to the pharmacy's bank account. CHARMS uses the dollar amounts of the ACH transfers as well as ongoing cash usage information to project future financial requirements.

Detailed Description Text (149):

(8) producing an ACH detail transaction for all positive ACH amounts; and

Detailed Description Text (166):

CHARMS performs a daily reconciliation of all RAs and all claims processed during the month for each service provider. CHARMS matches the statement and payment data to the appropriate transaction files. CHARMS records reconciliation differences to its records and identifies exception dispositions. CHARMS's daily processing includes recognition of each payor's and plan's cycle rule-off, generation of notice of amount and date due, and reconciliation of payments and RAs received.

Detailed Description Text (178):

(5) For timing differences: (a) the reconciliation process applies to unmatched claims detail items only; (b) the date of transaction should generally be the same as the last day of cycle period per payor and plan profiles; and (c) the time of transaction should generally be within 15 minutes of the hour of rule-off per the payor and plan profiles.

Detailed Description Text (189):

To facilitate the collection process, in this embodiment CHARMS interfaces with the collection agency's system and transmits information from the payor and obligor profile databases and accounts receivables information including new receivables and resolution of old items. In addition, CHARMS provides the collection agency, based on the set of predefined protocols, with collection alerts, collection issues, collection management reports including resolved items, and payment information. CHARMS creates a pharmacy

ACH adjustment and sends the pharmacy a monthly statement and the payor an invoice.

Detailed Description Text (195):

Transaction Structuring Modules allow the user to see the effect of changing transaction parameters on returns to the sellers, investors and the sponsor. It also allows the user to perform "sensitivity analysis" to see how the returns to investors and the issuing entity change for different collateral behavior assumptions. Weighted average life, internal rate of return, and tranche break-even points are calculated and graphed for investor documents.

Detailed Description Text (198):

Issuing Entity Administration Modules integrate the different modules to calculate, track and account for the purchase of collateral, issuance of debt and the accrual and payment of expenses. These modules also automatically generate general ledger journal entries and issuing entity budgets and forecasts for the collateral sellers on an individual transaction or consolidated basis.